#	Software Requirement Name
	IDPS
4.8.1	The IDPS software on each LPS string shall provide the capability to process the equivalent of any combination of the format 1 and format 2 portions of 125 Landsat 7 ETM+ scenes of wideband data per day (approximately 25-30 GB per day).
4.8.2	The IDPS software on each LPS string shall process aligned band data at a minimum rate of not less than 7.5 Mbps (based on a minimum raw wideband throughput of 7.5 Mbps without PCD and CADU overhead).
4.8.3	The IDPS software on each LPS string shall provide the capability to execute concurrently with all other LPS subsystems.
4.8.3.1	The IDPS software on each LPS string shall begin to process received data immediately upon receipt of required inputs.
4.8.3.2	The IDPS software on each LPS string shall output scene metadata within 250 seconds of the time of receiving all required inputs.
4.8.4	The IDPS software on each LPS string shall provide the capability to reprocess a maximum of 10% of a string's daily input volume of data (approximately 12.5 scenes or 2.5-3 GB per day).
4.8.5	The IDPS software on each LPS string shall provide the capability to process received data at a daily average aggregate rate of 2.9 megabits per second (Mbps) (Includes 10% of overhead due to reprocessing).
4.8.6	The IDPS software on each LPS string shall maintain data processing throughput performance for all Landsat 7 raw data received with a BER of one bit error in 105 bits, without loss of level zero processed data and without retransmission.
4.8.7	The IDPS software on each LPS string shall output any periodic processing status information that it generates with a maximum latency of 30 seconds between outputs.
	LDTS
4.10.2.1	The LDTS software on each LPS string shall provide the capability to transfer the equivalent of any combination of the format 1 and format 2 portions of 125 Landsat 7 ETM+ scenes of wideband data per day (approximately 25-30 GB per day). [4.1.3]
4.10.2.2	The LDTS software on each LPS string shall provide the capability to execute concurrently with all other LPS subsystems.
4.10.2.2.1	The LDTS software on each LPS string shall output a DAN within 240 seconds of the time of receiving all required inputs.
4.10.2.3	The LDTS software on each LPS string shall provide the capability to reprocess a maximum of 10% of a string's daily input volume of wideband data (approximately 12.5 scenes or 2.5-3 GB per day).
4.10.2.4	The LDTS software on each LPS string shall maintain data processing throughput performance for all Landsat 7 raw wideband data received with a BER of one bit error in 105 bits, without loss of level zero processed data and without retransmission.
4.10.2.5	The LDTS software on each LPS string shall provide the capability to transfer the string's daily volume of LPS output files to the LP DAAC at an average aggregate rate of 10 Mbps.
4.10.2.6	The LDTS software on each LPS string shall output any periodic processing status information that it generates with a maximum latency of 30 seconds between outputs.
	MACS
4.9.2.1	The MACS software on each LPS string shall forward any directive to start/stop data capture or to generate a data receive summary to the RDCS within one second of its receipt from the operator.
4.9.2.2	The MACS software on each LPS string shall display a data receive summary for the most recently received raw wideband data within one second of its receipt from the RDCS.
4.9.2.3	The MACS software on each LPS string shall submit a data receive summary for the most recently received raw wideband data to a print queue within 1 second of its receipt from the RDCS.
4.9.2.4	The MACS software on each LPS string shall provide the capability to execute concurrently with all other LPS subsystems.
4.9.2.4.1	The MACS software on each LPS string shall begin to process metadata immediately upon receipt of required inputs.
4.9.2.4.2	The MACS software on each LPS string shall output a metadata file within 240 seconds of the time of receiving all required inputs.
4.9.2.5	The MACS software on each LPS string shall maintain data processing throughput performance for all Landsat 7 raw wideband data received with a BER of one bit error in 105 bits, without loss of level zero processed data and without retransmission.

#	Software Requirement Name
4.9.2.6	The mean time to bring up the MACS software on any LPS string (from operating system boot to readiness to accept operator inputs) shall not exceed 12 minutes (based on a 15 minute estimate from RMA analysis and allowing 3 minutes for operator initiation a
4.9.2.7	The time to bring up the MACS software on any LPS string (from operating system boot to readiness to accept operator inputs) shall not exceed twice the required mean time to bring up MACS software in 99 percent of all cases.
4.9.2.8	The MACS software on each LPS string shall output any periodic processing status information that it generates with a maximum latency of 30 seconds between outputs.
	MFPS
4.6.2.1	The MFPS software on each LPS string shall provide the capability to process the equivalent of any combination of the format 1 and format 2 portions of 125 Landsat 7 ETM+ scenes of wideband data per day (approximately 25-30 GB per day).
4.6.2.2	The MFPS software on each LPS string shall process received data at a minimum rate of not less than 7.5 Mbps. (based on a minimum raw wideband throughput of 7.5 Mbps).
4.6.2.3	The MFPS software on each LPS string shall provide the capability to execute concurrently with all other LPS subsystems.
4.6.2.3.1	The MFPS software shall begin to process received raw data immediately upon receipt of required inputs.
4.6.2.3.2	The MFPS software shall output the equivalent of one Landsat 7 ETM+ scene worth's of Major Frames and PCD within 240 seconds of the receipt of all required inputs.
4.6.2.4	The MFPS software on each LPS string shall provide the capability to reprocess a maximum of 10% of a string's daily input volume of wideband data (approximately 12.5 scenes or 2.5-3 GB per day).
4.6.2.5	The MFPS software on each LPS string shall provide the capability to process received wideband data at a daily average aggregate rate of 3 megabits per second (Mbps) (Includes 10% of overhead due to reprocessing).
4.6.2.6	The MFPS software on each LPS string shall maintain data processing throughput performance for all Landsat 7 raw wideband data received with a BER of one bit error in 10^5 bits, without loss of level zero R processed data and without retransmission.
4.6.2.7	The MFPS software on each LPS string shall output any periodic processing status information that it generates with a maximum latency of 30 seconds between outputs.
	PCDS
4.7.2.1	The PCDS software on each LPS string shall provide the capability to process the equivalent of any combination of the format 1 and format 2 portions of 125 Landsat 7 ETM+ scenes of wideband data per day (approximately 25-30 GB per day).
4.7.2.2	The PCDS software on each LPS string shall process unpacked PCD data at a minimum rate of not less than 3.2 kilobits per second (Kbps) (based on a minimum raw wideband throughput of 7.5 Mbps)
4.7.2.3	The PCDS software on each LPS string shall provide the capability to execute concurrently with all other LPS subsystems.
4.7.2.3.1	The PCDS software shall begin to process received raw wideband data immediately upon receipt of required inputs.
4.7.2.3.2	The PCDS software shall output a scene center identification, a sun azimuth at scene center value, and a sun elevation at scene center value within 240 seconds of the time of receiving all required inputs.
4.7.2.4	The PCDS software on each LPS string shall provide the capability to reprocess a maximum of 10% of a string's daily input volume of wideband data (approximately 12.5 scenes or 2.5-3 GB per day).
4.7.2.5	The PCDS software on each LPS string shall provide the capability to process unpacked PCD data at a daily average aggregate rate of 12.7 Kbps per second (Includes 10% of overhead due to reprocessing).
4.7.2.6	The PCDS software on each LPS string shall maintain data processing throughput performance for all Landsat 7 raw wideband data received with a BER of one bit error in 105 bits, without loss of level zero processed data and without retransmission. [
4.7.2.7	The PCDS software on each LPS string shall output any periodic processing status information that it generates with a maximum latency of 30 seconds between outputs.
	RDCS
4.4.2.1	The RDCS software on each LPS string shall generate the information necessary to produce a data receive summary for received wideband data within 10 seconds of the conclusion of its capture.
4.4.2.2	The RDCS software on each LPS string shall produce a data receive summary for the most recently received wideband data within 10 seconds of the receipt of an appropriate directive from the MACS.

#	Software Requirement Name
4.4.2.3	The RDCS software on each LPS string shall provide the capability to receive the equivalent of any combination of the format 1 and format 2 portions of 125 Landsat 7 ETM+ scenes of wideband data per day (approximately 25-30 GB per day).
4.4.2.4	The RDCS software on each LPS string shall provide the capability to copy received wideband data to removable media at a minimum rate of 7.5 Mbps.
4.4.2.5	The RDCS software on each LPS string shall provide the capability to copy received wideband data to removable media concurrently with Level 0R processing of that data.
4.4.2.6	The RDCS software on each LPS string shall provide the capability to reprocess a maximum of 10% of a string's daily input volume of wideband data (approximately 12.5 scenes or 2.5-3 GB per day).
4.4.2.7	The RDCS software on each LPS string shall provide the capability to copy received wideband data to removable media at a daily average aggregate rate of not less than 3 megabits per second (Mbps) (Includes 10% of overhead due to reprocessing).
4.4.2.8	The RDCS software on each LPS string shall maintain data processing throughput performance for all Landsat 7 raw wideband data received with a BER of one bit error in 105 bits, without loss of Level OR processed data and without retransmission.
4.4.2.9	The RDCS software on each LPS string shall provide the capability of receiving wideband data from a single LGS output channel at a maximum rate of 75 Mbps.
4.4.2.10	The RDCS software on each LPS string shall provide the capability to receive wideband data for Landsat 7 contact periods of up to 14 minutes.
4.4.2.11	The RDCS software on each LPS string shall output any periodic processing status information that it generates with a maximum latency of 30 seconds between outputs.
	RDPS
4.5.2.1	The RDPS software on each LPS string shall provide the capability to process the equivalent of any combination of the format 1 and format 2 portions of 125 Landsat 7 ETM+ scenes of wideband data per day (approximately 25-30 GB per day).
4.5.2.2	The RDPS software on each LPS string shall process received wideband data at a minimum rate of not less than 7.5 Mbps. (based on a peak raw wideband throughput of 7.5 Mbps).
4.5.2.3	The RDPS software on each LPS string shall provide the capability to execute concurrently with all other LPS subsystems.
4.5.2.3	The RDPS software on each LPS string shall provide the capability to execute concurrently with all other LPS subsystems.
4.5.2.3.1	The RDPS software shall begin to process received raw wideband data immediately upon receipt of required inputs.
4.5.2.3.2	The RDPS software shall output the equivalent of one Landsat 7 ETM+ scene (215,445 CADUs) within 250 seconds of the time either at the beginning of processing or the time of its last output.
4.5.2.4	The RDPS software on each LPS string shall provide the capability to reprocess a maximum of 10% of a string's daily input volume of wideband data (approximately 12.5 scenes or 2.5-3 GB per day).
4.5.2.5	The RDPS software on each LPS string shall provide the capability to process received wideband data at a daily average aggregate rate of 3 megabits per second (Mbps) (Includes 10% of overhead due to reprocessing).
4.5.2.6	The RDPS software on each LPS string shall maintain data processing throughput performance for all Landsat 7 raw wideband data received with a BER of one bit error in 105 bits, without loss of level zero processed data and without retransmission.
4.5.2.7	The RDPS software on each LPS string shall provide the capability to retrieve retained wideband data at rates equal to or greater than 7.5 Mbps.
4.5.2.8	The RDPS software on each LPS string shall output any periodic processing status information that it generates with a maximum latency of 30 seconds between outputs.